

Google scholar

austenite free boundary problem

Search

[Advanced Scholar Search](#)
[Scholar Preferences](#)

Scholar

Articles and patents

- 2004

include citations

Results 1 - 10 of about 7,670. (0.14 sec)

Free boundary conditions at austenite-martensite interfaces[caltech.edu](#) (PDF)

OP Bruno, PH Leo, F Reilich - Physical review letters, 1995 - APS

... (Note that in our dynamic con- figuration and due to the additional dissipative stress, the actual strains in the **austenite** and martensite ... The **free boundary problem** (1)-(4) can be used to de- rive simple expressions in closed form giving observables such as the width of the ...

Cited by 30 - Related articles - BL Direct - All 6 versions

[citation] Heat conduction or diffusion with change of phase

SG Barkoff - Advances in chemical engineering, 1964

Cited by 91 - Related articles

Nonequilibrium thermodynamics of pseudoelasticity

Y Hao, I Müller - Continuum Mechanics and Thermodynamics, 1993 - Springer

... Here U , K , S are the internal energy, kinetic energy and entropy of the body, q_i is the heat flux, t_{ij} the Cauchy stress tensor, v_i the velocity, n_i the outer normal and dA the area element on the **boundary** ∂B Thus the specific **free energies** $f := F/m$ of the **austenite** and martensite ...

Cited by 119 - Related articles - All 2 versions

... of free energy of δ -ferrite/ γ -austenite interphase boundary of low carbon steels by ...

H Yin, T Emi, H Shibata - ISIJ international, 1998 - Journal@rchive

... hot-direct-rolling process and in mini-mills with thin- slab-casting process, finer **austenite** (γ) grains are prerequisite because most of ferrite (α) grains nucleate and grow at the γ -grain **boundary** (referred as GB hereafter). ... γ -grains in -matrix and hence the **free energy** of γ IB ...

Cited by 17 - Related articles - BL Direct - All 6 versions

The free energy of mixing for n-variant martensitic phase transformations using ...[wias-berlin.de](#) (PDF)

S Govindjee, A Mielke, GJ Hall - Journal of the Mechanics and Physics of ..., 2003 - Elsevier

... Lack of the wisc property implies non-existence of a minimizing deformation for given **boundary** data and hence indicates the formation of ... In this paper, we do not directly address the evolutionary **problem**, rather we consider in some detail the **free energy** density of the ...

Cited by 65 - Related articles - BL Direct - All 14 versions

Application of a partially relaxed shape memory free energy function to estimate ...

GJ Hall, S Govindjee - Journal of the Mechanics and Physics of Solids, 2002 - Elsevier

... in every way save orientation, the resulting function must have multiple "wells" corresponding with **austenite** and each ... see Ericksen (1986), and (1). (Kohn, 1991), where $W \alpha$ is the **free energy** of ... a body made of such a material will evolve under a given set of **boundary** conditions ...

Cited by 23 - Related articles - BL Direct - All 4 versions

Thermodynamics controlling the proeutectoid ferrite transformations in Fe-C-Mn ...

JB Gilmour, GR Purdy, JS Kirkaldy - Metallurgical and Materials ..., 1972 - Springer

... The paraequi- librium **boundaries** project to the true binary equilb- rium on the Fe-C side and to the T_0 composition (the point where **austenite** and ferrite of the same composi- tion have equal **free energy**) on the Fe-Mn side. ...

Cited by 62 - Related articles - All 3 versions

Couplings between plasticity and martensitic phase transformation: overall ...

M Cherkaoui, M Berveiller, X Lemoine - International Journal of Plasticity, 2000 - Elsevier

... In order to obtain the driving force acting on the moving **boundary**, the two-phase martensitic-austenitic material can be ... the dissipation is given by the difference between the power developed by the external forces and the variation of the Helmholtz **free energy** chosen as a ...

Cited by 49 - Related articles - BL Direct - All 5 versions

The multiphase-field model with an integrated concept for modelling solute ...

J Tiaden, B Nestler, HJ Diepers, I Steinbach - Physica D: Nonlinear ..., 1998 - Elsevier

... 2. The **free energy** difference is then defined in the standard way by the latent heat L and the ... The amount of carbon in the ferrite at the phase **boundary** to the liquid always tends to adjust the equilibrium ... **austenite** grows under simultaneous dissolution of δ ferrite and of the liquid ...

Cited by 130 - Related articles - All 6 versions

Modelling the evolution of phase boundaries in solids at the meso-and nano- ...[northwestern.edu](#) (PDF)

K Thornton, J Agren, PVV Voorhees - Acta Materialia, 2003 - Elsevier

... We expect that ab initio calculations of interfacial **free energies** will become much widely available ... After analyzing available experimental information on the massive ferrite/austenite transformation, recrystallization and grain ... [70 and 71] investigated grain **boundary** migration in ...

Cited by 50 - Related articles - All 5 versions

Google

Result Page: 1 2 3 4 5 6 7 8 9 10 [Next](#)

austenite free boundary problem

Search

[Go to Google Home](#) - [About Google](#) - [About Google Scholar](#)

©2010 Google